

METHOD OF FABRICATING A DUAL DAMASCENE COPPER WIRE

Abstract

A method of forming at least one wire on a substrate. The substrate includes at least one conductive region. An insulating layer is disposed on the substrate. At least one recess in the insulating layer exposes the conductive region. A barrier layer is formed on a surface of the insulating layer and the recess first. A continuous and uniform conductive layer is then formed on a surface of the barrier layer. A seed layer is thereafter formed on a surface of the conductive layer. Finally, a metal layer filling up the recess is formed on a surface of the seed layer.